



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,715	11/27/2001	Yoshihisa Kudo	Q67363	8359

21171 7590 03/06/2006

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

PROCTOR, JASON SCOTT

ART UNIT PAPER NUMBER

2123

DATE MAILED: 03/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,715

Applicant(s)

KUDO ET AL.

Examiner

Jason Proctor

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,5-8,10,11,13,15,16,18,22,23,25 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,5-8,10,11,13,15,16,18,22,23,25 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In the previous Office Action, claims 1-51 were subject to a restriction requirement. Claims 1-26 were provisionally elected. Claims 1-26 were rejected.

Applicants' response filed on 5 December 2005 has cancelled claims 1, 3, 4, 9, 12, 14, 17, 19-21, 24, and 27-51. Claims 2, 5-8, 10, 11, 13, 15, 16, 18, 22, 23, 25, and 26 have been amended. Accordingly, claims 2, 5-8, 10, 11, 13, 15, 16, 18, 22, 23, 25, and 26 remain pending in this application.

Claims 2, 5-8, 10, 11, 13, 15, 16, 18, 22, 23, 25, and 26 have been rejected.

Restriction/Election

1. Applicant's election without traverse of Group I, claims 1-26 in the reply filed on 5 December 2005 is acknowledged.

Claim Objections

The Examiner thanks Applicants for addressing the grounds for the previous objections to the claims. Those objections have been withdrawn.

Art Unit: 2123

2. Claim 13 is objected to because of the following informalities: Amendments to delete the word “for” in “means for” style limitations create several grammatical errors. Appropriate correction is required.

3. Claim 18 is objected to because of the following informalities: The preamble of the claim contains several grammatical errors or ambiguous language, such as:

“A virtual workshop system, including a computer, which is a system to verify a workshop...” Is the virtual workshop system or the computer “a system to verify a workshop?” If the former, should it be described as “a virtual workshop verification system including a computer?” Does the language “a system to verify a workshop” indicate that the “system” is a *method*? Certainly the phrase “a *method* to verify a workshop” complies with common English more so than “an *apparatus* to verify a workshop.”

“[T]he system including a plurality of production facilities are a dedicated unitary equipment...” This phrase appears to omit a necessary word, such as “production facilities **that** are a dedicated unitary equipment...”

“[W]hile some of production facilities are arranged in a plural number to define a production line...” This phrase appears to omit a necessary word, such as “some of **the** production facilities...”

Claim Rejections - 35 USC § 112

The previous rejections under 35 U.S.C. § 112, first paragraph, have been withdrawn in response to Applicants' remarks. In particular, the following were found to be persuasive (emphasis added).

Applicants respectfully submit that one of ordinary skill in the art would understand that **the virtual workshop system 11 is a computer**, and thus, since the virtual workshop authoring means 22 is an element of the virtual workshop system 11 (see FIG. 1), **the virtual workshop authoring means 22 is computer software**. (Applicants' response, page 10)

Applicants respectfully submit that one of ordinary skill in the art would understand that it is not necessary for the virtual workshop authoring means 22 to have a user interface, but that the virtual workshop authoring means 22 must be able to use the data in the facility database, e.g., facility database 17 (see FIG. 3). (Applicants' response, page 11)

Additionally, given the Specification, e.g., at p. 26, lines 9-15, and page 27, line 25 to p. 28, line 15, Applicants respectfully submit that one of ordinary skill in the art would also understand that **the simulating means 23 provides a user interface to set and adjust simulated operating conditions, and that the simulating means 23 simulates the production stat [sic] and physical distribution state of facilities under such set and/or adjusted conditions, and displays results of such simulation to a user**. (Applicants' response, page 11)

The Examiner respectfully submits that because of the abstract language of the disclosure and Applicants' response shown above, the disclosure is not drawn to a specific "virtual workshop authoring means" or a specific method of "simulation." Therefore, in order to comply with the requirements of 35 U.S.C. § 112, first paragraph, the claim terminology should be interpreted broadly because, in general, the application does not contain the type of disclosure necessary to redefine or limit the claim language to a particular interpretation. See also MPEP 2111.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

In response to the previous rejections,

Applicants respectfully submit that the amendments overcome the Examiner's rejections.

In light of the extensive amendments to the claims, the Examiner accepts this submission as fully responsive and thanks Applicants for improving the state of the claims. The previous rejections under 35 U.S.C. § 112, second paragraph, which are not revised below, have been withdrawn.

5. Claims 2, 5-8, and 10-11 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "a workshop facility designing method" but concludes with "a remote monitoring process" that apparently occurs after the workshop facility has been designed. The claim is indefinite because it is unclear how "a remote monitoring process" that monitors "the actual workshop" defines "a workshop development process" or distinguishes it from the prior art. Similar ambiguities exist regarding the steps of "a workshop development process of constructing an actual workshop." The preamble unambiguously relates to a workshop facility **designing** method, not a construction or remote monitoring method.

It is unclear which, if any, of the recited steps constitute "a workshop facility designing method." The Examiner respectfully suggests a preamble that is properly directed to the recited limitations or amending those limitations to correspond to the preamble.

Claim 2 concludes with the limitation "comparing the production state and the physical distribution state that have been monitored, with the productions state and the physical distribution state that have been simulated," but there is no positively recited outcome for this abstract step. It is unclear how this step defines the method, or alternatively, how omitting this

Art Unit: 2123

step would redefine the method or its result. The step of comparing therefore appears not to be required by the method.

6. Claim 6 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites that “[the method of claim 2] further comprising: a program executing procedures of operating the production facility, stored on the computer, to formulate the virtual workshop, wherein the simulating means simulates the production state and the physical state to verify the virtual workshop by executing the program,” which is indefinite. What is a “program executing procedures of operating the production facility ... to formulate the virtual workshop?” This language appears first directed to a computer program that actually operates the production facility (i.e., controls the actual production machines) but then states that the program “formulates the virtual workshop.” The Examiner is unaware of a common definition for the term *to formulate* that readily accommodates both of these functions, or that such a program is well known in the art.

As a result, it is indefinite what step is defined by “the simulating means simulates the production state and the physical state to verify the virtual workshop by executing the program” because it is unknown what happens when the program is executed. Does this step “animate” a virtual workshop simulation? Does this step mean that the actual production machines will operate as being controlled by the program? Clarification is required.

Art Unit: 2123

7. Claim 8 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites “wherein the plural production facilities are a dedicated unitary equipment in which modular units are interchangeably fitted one at a time to a common process machine” which is indefinite. The proper antecedent basis for “the plural production facilities” appears to be “various production facilities” in claim 2. The common definition of *unitary* when applied to “a dedicated unitary equipment,” appears to contradict the claim language “in which modular units are interchangeable fitted one at a time to a common process machine.” Some common definitions for *unitary* are “undivided and existing as a unit” (Encarta® World English Dictionary, 2005), “a: of or relating to a unit, b : based on or characterized by unity or units” (Merriam-Webster Online Dictionary), and wide usage in mathematics which may or may not be appropriate here.

Based on speculative assumption and supported by the prior art as common in the production facility technology, the Examiner will interpret the phrase as omitting the word “unitary.” Clarification or correction is required.

8. Claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 provides for the use of “a result of the remote monitoring”, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process

Art Unit: 2123

applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 is rejected under 35 U.S.C. § 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

9. Claim 13 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites “remote monitoring the production state and the physical distribution state of **the facilities in the layout employed in an actual workshop constructed according to the model of the virtual workshop so verified,**” but the method contains no steps of employing facilities or constructing an actual workshop. Does this limitation imply a step of constructing an actual workshop? Does this claim also read on a previously constructed workshop that, by circumstance or design, corresponds to the simulation? It is noted that claim 2, which corresponds closely to claim 13, includes “a workshop development process of constructing an actual workshop.” It is unclear whether constructing a workshop should be read as a limitation implicit in the language of claim 13.

Art Unit: 2123

10. Claim 18 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites “while some of production facilities are arranged in a plural number to define a production line” which renders the claim indefinite. This limitation presents a vague abstraction that has no concrete boundary, while “some of [the] production facilities” is an indefinite relative term. Does one production facility inherently meet this limitation? Is it possible to arrange a plural number of production facilities without defining a production line? Where is the precise boundary which the prior art must cross in order to teach meet this limitation?

While, in some instances, the prior art may expressly describe an arrangement of machinery as “a production line,” absent that explicit description it is not possible to determine what does or does not read on this language. Of course, it is not necessary for the prior art to appreciate that a particular arrangement may inherently define a production line (See MPEP 2112 (II)), which emphasizes the need for definite claim language in this respect.

11. Claim 22 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites “wherein the remote monitoring system is capable of performing a remote maintenance” which renders the claim vague and indefinite. Where a claim recites that a

Art Unit: 2123

structure **is capable** of performing a function, but does not explicitly require that function, the claim is indefinite because it is unknown what invention is expressly defined by the claim.

12. Claim 26 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 26 recites “a dedicated unitary equipment in which modular units are interchangeably fitted one at a time to a common process machine” which is rejected for similar rationale to claim 8 as set forth above.

Claim Interpretation

13. Claim 5 recites “wherein the simulating means obtains a quality of a product being produced,” which is interpreted as meaning “a distinctive attribute or characteristic,” or equivalent, that interpretation being a broad reasonable interpretation in light of the specification.

This interpretation is intended to contrast that in which a quality means “the degree of excellence of something as measured against other similar things,” for which no specific support exists in the application as filed.

14. Claim 10 recites “wherein during the workshop deployment process, information on operating conditions set during the virtual workshop verifying process are transmitted through a

Art Unit: 2123

data communication means,” which is interpreted literally. It is observed that the claim requires no particular recipient of the transmission.

15. Regarding claims 13 and 18, Applicants’ attention is drawn to MPEP 2181 (I) which states:

While traditional “means for” or “step for” language does not automatically make an element a means-(or step-) plus-function element, conversely, lack of such language does not prevent a limitation from being construed as a means-(or step-) plus-function limitation. See *Signtech USA, Ltd. v. Vutek, Inc.*, 174 F.3d 1352, 1356, 50 USPQ2d 1372, 1374– 75 (Fed. Cir.1999)

Applicants appear to have deleted the word “for” in almost every recitation a “means for” limitation. In addition to being grammatically incorrect, this amendment raises confusion as to whether this claim terminology should be interpreted under 35 U.S.C. § 112, sixth paragraph. In light of the substantial recitations of functionality, the claims will be interpreted without coverage under 35 U.S.C. § 112, sixth paragraph, in compliance with MPEP 2181 (I), part (C) of the “3-prong analysis.”

16. Claim 23, which recites two properties that the remote monitoring system is “capable” of fulfilling, will be interpreted as stated. That is, where the prior art does not expressly prohibit this functionality (i.e., it is capable of meeting the limitation), that prior art is regarded as an equivalent.

17. The limitations of claims 16 and 25, “wherein a product to be manufactured in the workshop is a mechanical component having a rolling element,” is interpreted as an intended use of the “actual workshop” which is implicitly required by claims 13 and 23, respectively.

18. Claim 26 will be interpreted as dependent upon claim 18 based upon the limitation “the virtual workshop system is a virtual workshop system as defined in claim 18.”

The claim interpretations given above are not to be interpreted as endorsements of claim language that complies with 35 U.S.C. §§ 101 and 112. The claim interpretation merely express the Examiner’s understanding of what Applicants are seeking to patent in accordance with the MPEP. These interpretations are made in order to apply prior art to the claims in the interest of compact prosecution.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

19. Claims 2, 5-8, 10, 11, 13, 15, 16, 18, 22, 23, 25, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over “Process Subsystem Architecture for Virtual Manufacturing Validation” by J. Michael Griesmeyer and Fred J. Oppel, III (Griesmeyer).

Griesmeyer teaches a workshop facility designing method comprising a virtual workshop verifying process of formulating a virtual workshop that is a data model of an existing or newly established workshop [“a process subsystem control architecture that facilitates *virtual manufacturing validation* through the use of common control *software* to run *both the virtual and real subsystem.*” (abstract) See Figure 2 (page 2374) and Section 3.1.2 regarding the formulation of a virtual workshop.];

Regarding the step of storing several types of information, Griesmeyer clearly suggests to a person of ordinary skill in the art the act of storing the requisite information to conduct the simulation in a computer, such as “*In our approach, the production process consists of a series of parameterized process operations*” (page 2371, right column), and inherent or implicit in teachings such as “*Each of the assembly subsystems includes a robot, a set of grippers and*

appropriate algorithms for picking up various items on a pallet and placing them on other items to construct the desired assembly” (page 2373, right column) and “Configuration files tell the subsystem where items are initially on the pallets” (page 2737, right column).

A simulating means that causes the virtual workshop to perform simulated production activity [Section 3.2 for an example of simulated production activity, such as “For example, to determine the ‘pallet exists state’ of the input port in the real environment requires the use of a proximity sensor to detect the arrival of the pallet. To determine the same state in the *virtual environment* requires the *simulation* to detect the arrival of the pallet utilizing collision routines. The virtual and real drivers generate the same type of state and event information.”];

Virtual products are manufactured in the virtual workshop [“*Virtual validation of the assembly sequences for small electro-mechanical devices has been done through the use of the assembly subsystem control architecture described here.*” (page 2375, right column)];

Production state, including production of the virtual products, production of virtual work in process, and distribution state, including flow of virtual work in process and flow of finished virtual products is monitored to thereby verify the virtual workshop [“*The virtual drivers for the assembly subsystem simulate the motion for all degrees of freedom in the system. This includes robot joint values, and gripper positions. The joint trajectory values are calculated using the routines available in the robot controller. Item locations are also modeled and are based on the attachment bookkeeping information...*” (page 2374, right column)];

A workshop development process of constructing an actual workshop including various layouts compatible with the virtual workshop so verified [Section 4, “The configuration files and the part tracking components of the assembly subsystem are verified together with the assembly

sequence parameters using the virtual drivers to the primitives. Then, the *construction of the actual assemblies* are performed with the validated scripts using the real drivers.”]

And a remote monitoring process of remote monitoring the production state and physical distribution state of the facilities in the layout employed in the actual workshop so constructed, and comparing the production state and the physical distribution state that have been monitored, with the productions state and the physical distribution state that have been simulated [Section 2.3, “The results of the *real primitive execution* need to be recorded and/or displayed to provide record of manufacture and feedback to the process development efforts. Results of the *virtual execution* must also be displayed and recorded for purposes of *virtual manufacturing validation*.”].

Regarding claim 5, Griesmeyer teaches that the simulating means obtains a quality of a product being produced [“*A typical interaction is transport of material into the input port of the assembly subsystem. One state within this interaction is ‘pallet exists in input port’.*” (page 2375, right column)].

Regarding limitations directed to changing the modular units or the arrangement of the facility, Griesmeyer teaches that the equipment has modular units that can be interchanged [“Thus, sub-operation primitives include *exchange of grippers*” (section 3, page 2374)]. Griesmeyer discloses that the equipment is arranged in a production line [Figure 2]. Further, it would have been obvious to a person of ordinary skill in the art at the time of Applicants’ invention to reuse the method of Griesmeyer after making a change to the arrangement of the

Art Unit: 2123

facility, especially in light of Griesmeyer's teachings ["*The approach makes it possible to reduce the number of real prototypes required to develop a validated manufacturing process.*" (page 2371, left column)] and in light of the rather apparent observation that when a manufacturing process fails validation, a change should be made.

Regarding limitations for a step of transmitting data through a data communication means or a "link system" or "link means" is regarded as inherent or suggested in the computerized method of Griesmeyer, especially where simulation components interact (page 2375, section 3.2).

Regarding limitations regarding manufacturing a "mechanical component having a rolling element," this recitation does not distinguish the invention over the prior art according to MPEP 2111.02 because this limitation does not "[result] in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art."

Regarding claim 23, Griesmeyer contains no disclosure that prohibits the functionality of claim 23.

The claims have been treated on their merits as best understood by the Examiner in light of the numerous issues under 35 U.S.C. § 112. Any differences between the claimed invention, as described by the application and supported under 35 U.S.C. § 112, first and second paragraph, and the teachings of Griesmeyer would have been obvious to a person of ordinary skill in the art

Art Unit: 2123

at the time of Applicants' invention in combination with what is readily apparent to that person of skill in the art.

Conclusion

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8am-4pm M-F.

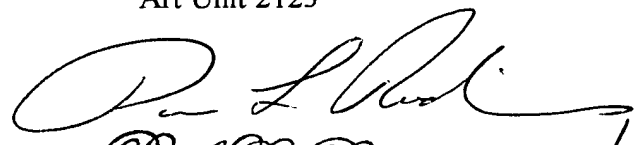
Art Unit: 2123

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

jsp


Paul L. Rodriguez 3/2/06
Primary Examiner
Art Unit 2125